

8463

Diag. Cht. Nos. 685 and 1243-2.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. ECFP-1458 Office No. H-8463

LOCALITY

State Florida

General locality ST. Johns River

Locality Vicinity of Jacksonville

1958-59

CHIEF OF PARTY

W. A. Hughes and H. S. Cole

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DATE Sept. 7, 1960

USCOMM-DC 5067

8463

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

REGISTER NO. H-8463

Field No. ECFP-1458

State FLORIDA

General locality ST. JOHNS RIVER

Locality Vicinity of JACKSONVILLE MUNICIPAL AREA

Scale 1:10,000 Date of survey 17 November 1958-8 April 1959

Instructions dated 7 August 1958

Vessel East Coast Field Party

Chief of party LT(jg) W. A. Hughes LTCDR H. S. Cole

Surveyed by G. F. Trefethen D. W. George ENS J. Dunston Wingfield, Jr.

Soundings taken by XXXXXXXX fathometer, graphic recorder, XXXXXXXXXXXX EDO 255-1 (No. 203)
808 (No. 101S & 77J)

Fathograms scaled by Party Personnel

Fathograms checked by Party Personnel & Norfolk Processing Office

Protracted by Dorothy C. Davenport (Norfolk Processing Office)

Soundings penciled by Dorothy C. Davenport

Soundings in XXXXXX feet at MLW XXXXXX and are true depths.

REMARKS:

DESCRIPTIVE REPORT
TO ACCOMPANY

HYDROGRAPHIC SURVEY H-8463, FIELD NO. ECFP-1458
JACKSONVILLE MUNICIPAL AREA, FLORIDA

PROJECT CS-407

SCALE: 1:10,000

EAST COAST FIELD PARTY

W. A. HUGHES, LT(jg)
O-IN-C (9/15/58)

1958-1959

H. S. COLE, LTCDR
O-IN-C (1/15/59)

SURVEYED BY:

G. F. TREFETHEN

D. W. GEORGE

J. D. WINGFIELD, JR., ENS, C&GS

A. PROJECT

Work on Project CS-407 was executed in accordance with instructions 222/MEK; FP-EAST COAST, dated 7 August 1958; and Supplemental Instructions 22/MEK - ECFP dated 12 March 1959. ✓

B. SURVEY LIMITS AND DATES

The area covered by this survey is in the St. Johns River, Jacksonville Municipal Area, Jacksonville, Florida. The limits are Latitude 30° 19.30'N; Longitude 81° 38.95'W, ✓ Longitude 81° 35.00'W to Quarantine Island; from the north-west tip of Quarantine Island to Drummond Point.

Hydrographic operations began on this sheet 17 November 1958 and ended 8 April 1959. ✓

This sheet forms a junction with Sheet H-8464 - (1959) scale 1:10,000; contemporary survey on the south and on the north ~~with~~ prior survey Reg. No. 1542b dated 16 January 1883, scale 1:10,000. A junction was also made with Corps of Engineers Survey DWG No. 1-24-730-5 dated September 1957, scale 1:6,000. This drawing is primarily concerned with the dredged channels maintained by the Corps of Engineers. ✓

O. VESSELS AND EQUIPMENT

Launch US-168 and US-183 were used for the survey. US-183, a 33 foot wooden launch has a standard speed of 8.5 knots at 1800 rpm and a turning radius of 25 meters at standard speed and half rudder. Reduced speed was made at 1000 rpm and was 5 knots. Launch US-168 is a 20 foot aluminum launch with a turning radius of 20 meters at standard speed and half rudder (45°). Sounding speed is approximately 5 knots. ✓

An 808 type rathometer was used for this survey (No. 1018 and No. 77J). A sounding pole was used to obtain soundings in depths less than 3 feet. The rathometer was used on A and B ranges only. ✓

Launch US-168 and US-183 were based at the U. S. CORPS OF ENGINEERS DREDGE DEPOT for the period of this survey. ✓

An ELO-255 type rathometer (No. 203) was used the first two days of work on this sheet, but due to the size of the initial made by this type fathometer it was impossible to obtain a sounding in less than 6 feet of water. ✓

D. TIDE AND CURRENT STATIONS

Four tide zones (3 tide gage locations) were used in reducing the soundings for this survey. The tide reducers and limits were applied according to Letter 36-38-1561 dated 13 February, 1959, and the sketch accompanying said letter.

A tide gage at Chaseville, Fla., controlled hydrography in the northern portion of the survey from 17 November 1958 to 10 December 1958. This gage was moved from Chaseville to the U.S. Navy Fuel Depot on 12 December 1958.

The standard permanent tide gage at the Corps of Engineer Dredge Depot was used to control the central and southern portions of the survey. Time and range corrections were applied to the data from this gage according to the letter mentioned above.

Gage locations and mean low water are as follows:

CHASEVILLE, FLA.

Gage Location: Lat. 30° 23.40'
Long. 81° 36.75'

Staff Mean low water corresponds to 1.2' on staff.

NAVY FUEL DEPOT

Gage Location: Lat. 30° 23.97'
Long. 81° 37.55'

Staff: Mean low water corresponds to 3.3' on staff.

USE DREDGE DEPOT

Gage Location: Lat. 30° 21.41'
Long. 81° 37.35'

Staff: Mean low water corresponds to 3.0' on staff.

There are no time or height corrections for the Chaseville and Fuel Depot gages. The Dredge Depot gage was applied to three zones and the corrections were made according to the letter mentioned above.

The four tide zones and the days and positions to which they apply are tabulated as follows. The tide reducers were applied according to this tabulation.

ZONE #1 : Chaseville or USN Fuel Depot (Interchangeable), no correction

(a) Launch CS-168

<u>Date</u>	<u>Day Letter</u>	<u>Positions</u>
17 Nov. 1958	a	All day
18 Nov. 1958	b	" "
19 Nov. 1958	c	" "
20 Nov. 1958	d	1 to 52 57 to 70 79 to 86 (5th sdg. out)
21 Nov. 1958	e	1 to 73
1 Dec. 1958	f	1 to 4
24 Mar. 1959	q	50 to 66
25 Mar. 1959	r	4 to 137
26 Mar. 1959	s	All day
27 Mar. 1959	t	" "
1 Apr. 1959	u	" "
2 Apr. 1959	v	" "
3 Apr. 1959	w	" "
6 Apr. 1959	x	" "
7 Apr. 1959	y	" "
8 Apr. 1959	z	" "

(b) Launch CS-183

12 Jan. 1959	a	86 to 88
13 Jan. 1959	b	19 to 20 24(5th out) to 29(5th out) 31 to 40(2nd out)

ZONE #2 : Jacksonville (USE Dredge Depot), no correction

(a) Launch CS-168

20 Nov. 1958	d	52 to 57 70 to 79 86(5th out) to 101
21 Nov. 1958	e	73 to 75
1 Dec. 1958	f	5 to 43
2 Dec. 1958	g	all Day
8 Dec. 1958	j	1 to 56(3rd out) 66 to 68(3rd out) 72 to 74 114 to 118
10 Dec. 1958	k	1 to 31(4th out) 34 to 42 47 to 53(4th out)
19 Dec. 1958	l	1 to 8
7 Jan. 1959	m	103 to 107

ZONE #2 (CONT'D)

(b) Launch CS-183

<u>Date</u>	<u>Day Letter</u>	<u>Positions</u>
12 Jan. 1959	a	1 to 20 22 to 25 63 to 86
13 Jan. 1959	b	1 to 18 20 to 24(4th out) 29(4th out) to 30 40(2nd out) to 48

ZONE #3 : Jacksonville (USE Dredge Depot) with a +20 minute time correction and a 0.9 ratio of the hourly heights.

(a) Launch CS-168

<u>Date</u>	<u>Day Letter</u>	<u>Positions</u>
10 Dec. 1958	k	31(4th out) to 34 42 to 47 53(4th out) to 83
19 Dec. 1958	l	8 to 11
7 Jan. 1959	m	1 to 102
8 Jan. 1959	n	67(2nd out) to 102
9 Jan. 1959	p	All day
24 Mar. 1959	q	10 to 49
25 Mar. 1959	r	1 to 3
5 Dec. 1958	h	All day
8 Dec. 1958	j	56(3rd out) to 66 68(3rd out) to 71 74 to 113

(b) Launch CS-183

<u>Date</u>	<u>Day Letter</u>	<u>Positions</u>
12 Jan. 1959	a	21 to 22 25 to 49 55 to 62

ZONE #4 : Jacksonville (USE Dredge Depot) with a +40 minute time correction and a 0.7 ratio of the hourly heights.

(a) Launch CS-168

<u>Date</u>	<u>Day Letter</u>	<u>Positions</u>
8 Jan. 1959	n	46 to 67(2nd out)
24 Mar. 1959	q	1 to 9

✓

ZONE #4 (CONT'D)

(b) Launch CS-183

<u>Date</u>	<u>Day Letter</u>	<u>Positions</u>
12 Jan. 1959	a	51 to 55

ZONE #5 :

In applying the tide reducers to those sounding lines crossing from Zone 3 to Zone 4 and back, it was found that a discrepancy of 0.6 ft. existed at this junction in times of high water. Below half tide level, the junction was agreeable. The discrepancy was traced to the obvious fact that Zones 3 and 4 were based on different ratios of the same hourly heights. Therefore, the higher the tide, the greater the discrepancy. It was decided by this Field Party, to create an arbitrary Zone 5 (between Zones 3 & 4) with the following characteristics:

Jacksonville (USE Dredge Depot) with a +30 minute time correction and a 0.8 ratio of the hourly heights.

The reducers from Zone 5 apply as follows:

(a) Launch CS-168

<u>Date</u>	<u>Day Letter</u>	<u>Positions</u>
8 Jan. 1959	n	1 thru 46

(b) Launch CS-183

12 Jan. 1959	a	49 thru 51
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CURRENT STATIONS:

There were four (4) current stations occupied within the limits of this survey:

(1) Drummond Point	Lat. $30^{\circ} 24.45'$ Long. $81^{\circ} 36.15'$ ✓
(2) Chaseville	Lat. $30^{\circ} 22.90'$ Long. $81^{\circ} 37.73'$ ✓
(3) USCE Depot	Lat. $30^{\circ} 21.38'$ Long. $81^{\circ} 37.10'$ ✓
(4) Commodore Point	Lat. $30^{\circ} 19.10'$ Long. $81^{\circ} 37.65'$ ✓

Two other stations were occupied south of the limits of this survey in the vicinity of the municipal bridge area. The current work was executed in accordance with Instructions 222/MEK FP-East Coast dated 7 August 1958. A special report on this phase of the Project has previously been submitted by former Lt. (j.g.) William A. Hughes, the officer-in-charge at the time of the current observations. ✓

E. SMOOTH SHEET

Not applicable.

F. CONTROL STATIONS

The following is a list of triangulation stations and the source of control for each:

<u>STATION</u>	<u>SIGNAL NAME</u>	<u>G. F. PGE.</u>	<u>VOL. NO.</u>	<u>CH. OF PTY.</u>
EPPINGER & RUSSELL CREOSOTING WORKS SMOKE STACK, 1926	ABK	92	1	W.H.B.
BEN (USE) 1908	BEN	81	1	W.H.B.
DRIGGS 2 USE, 1926	LAM	81	1	W.H.B.
JACKSONVILLE FORD MOTOR CO. WATER TANK, 1926	POT	94	1	H.A.P.
JACKSONVILLE WILSON TOOMER FERTILIZER CO. WATER TANK, 1926	XXX TUB	94 41	1	W.H.B.
JACKSONVILLE ARMOR FERTILIZER CO. WATER TANK, 1926	VIM	41	1	W.H.B.
JACKSONVILLE CITY FIRE STATION #11 WATER TANK, 1926	YES	40	1	W.H.B.
BIGELOW (USE) 1908	RAT	94	1	H.A.P. ✓

See Appendix A for a list of control stations and the origin of each.

G. SHORELINE AND TOPOGRAPHY

Shoreline and topographic details were obtained from photographic manuscripts T-10828, T-10825, T-10829, and T-10824 and T-10834, and T-10835 of 1958-59.

At Longitude $81^{\circ} 37.85'$ and Latitude $30^{\circ} 19.08'$ a floating dry dock is semi-permanently located, which is not charted. *is charted on # 577 last printing date 1-25-62*

H. SOUNDINGS

Soundings for the most part were made with an 808 type rathometer; No. 77J.

The ELO No. 205 was used at the beginning of the sheet but it was discovered that sounding under 6 feet was impossible with the initial on 1.0' due to the large initial, so the initial was put on zero during 'a' day and 'b' day. These days will have a +1.0 foot initial correction.

H. SOUNDINGS (cont'd)

Fathometer 808 type, No. 1018, was used and on 5 December 1958, a day, the wiring shorted out so the sounding pole was used for the rest of this day. ✓

Fathometer EDO No. 204 was used for two days on Launch US-103. ✓

Bottom samples were obtained with an armed lead. ✓

The sounding pole was used in waters too shoal for fathometer sounding. ✓

I. CONTROL OF HYDROGRAPHY

All hydrography was controlled by visual fix. Positions were taken from 1 to 1½ minutes apart; in some cases, however, a fix was not obtained and it was necessary to refer to the boat sheet in order to plot the position. ✓

J. ADEQUACY OF SURVEY

This survey is considered complete and adequate to supersede all prior surveys for charting purposes. ✓ *IP 6 & 7 Review*

Junctions with contemporary surveys are satisfactory and depth curves can be drawn at junctions. ✓ *IP 5 Review*

K. CROSSLINES AND BOTTOM SAMPLES

The percentage of crosslines run was about 5 to 6 percent. ✓
The crosslines were satisfactory throughout the survey.
Bottom samples were taken at representative areas throughout the survey.

Crossline differences during a day (1 April 1959) are explained on page 3 of Volume 8 and page 61 of Volume 9. ✓ *See IP 4 c of Review.*

L. COMPARISON WITH PRIOR SURVEYS

This survey was compared with prior surveys, Corps of Engineers, U. S. Army:

* DWG No. 1-24-750-5 ✓
Sheet 505
Scale: 1:16,000
Dated: September 1957

File No. 1B-19.914
Sheet No. 1 & 2 of 3 sheets
Scale: 1:16,000
Dated: July 1951

* See verifier's report.

This survey agrees with H-8463 very well except at buoys 68 & 69 - see verifier's report attached pages 71/1 DJK

L. COMPARISON WITH PRIOR SURVEYS (cont'd)

and prior survey Reg. No. 1542b dated June 16, 1883;
scale of 1:10,000.

See P 6 A Review

In general, the soundings shown on the old survey are in fair agreement with those on the new. Since the old survey was not as complete as the new, much of the necessary detail was not shown. All shoals and dangers are listed in section N of this report.

M. COMPARISON WITH CHART

A comparison with Chart No. 577, 29th edition, February 25, 1957 shows the following differences:

P 7 Review

Long. 81° 37.89' the 13' sounding on the chart
Lat. 30° 18.98' is changed to 21' 19'

Preliminary review item #2 is verified by lines 2, 28, and 29 of section N.

Preliminary review item #3 is verified by lines 23, 25, 26, and 27 of section N.

7A Review

Preliminary review item #4 is verified by positions 8 and 9 of q day, found in Volume 6.

N. DANGERS AND SHOALS

The following is a list of dangers and shoals found within the limits of the survey:

DESCRIPTION	LAT. & LONG.	DEPTHS		PRESENT CHART 577 POSIT.	DATE LOC.	
Shoal ✓	81° 37.80' ✓ 30° 22.78' ✓	28.6' ✓ 30.0' ✓	40-41c ✓	34.8 45c ✓	11/19/58	See previous notes
Shoal ✓	81° 37.79' ✓ 30° 23.47' ✓	AWASH ✓ AWASH (10) ✓	4.0 22e ✓	11/21/58	See previous notes	
Oyster ✓	81° 37.51' ✓ 30° 23.08' ✓	AWASH ✓ AWASH (10) ✓	2.0 12b ✓	11/18/58	See previous notes	
Rock Bar ✓	81° 37.45' ✓					
Wreck ✓	30° 19.09' ✓ 81° 37.96' ✓	BARES ✓	NONE ✓	78m ✓	1/7/59 ✓	
Wreck ✓	30° 18.68' ✓ 81° 37.81' ✓	BARES ✓	NONE ✓	60m ✓	1/7/59 ✓	
Pileag ✓	30° 18.70' ✓ 81° 37.72' ✓	N. Pile ✓ AWASH (2) ✓ S. Pile (1) ✓	NONE ✓	63m ✓	1/7/59 ✓	
Wreck + pier ✓	30° 19.57' ✓ 81° 37.61' ✓	AWASH ✓	NONE ✓	72k ✓	12/10/58	See previous notes
Wreck ✓	30° 19.07' ✓ (Pipe marker for wreck) 81° 36.21' ✓	14' above MHW ✓	89 ✓	3/24/59 ✓		
(Wreck) 3' & 4' ✓	30° 19.11' ✓ 81° 36.35' ✓	shown on survey as a 3ft. sdy. subm. rock. Note 9g also added at same location.	9g ✓	3/24/59		

N. DANGERS AND SHOALS (cont'd)

DESCRIPTION	LAT. & LONG.	PRESENT DEPTHS	CHART 577	POSIT.	DATE LOC.
Wreck (Barge)	30° 19.79' ✓ 81° 37.68' ✓	BARES ✓	NONE ✓	51k ✓	12/10/58 ✓
Wreck	30° 20.10' ✓ 81° 36.75' ✓	BARES (5) ✓	NONE ✓	96g ✓	3/24/59 ✓
Wreck	30° 21.52' ✓ 81° 36.76' ✓	BARES (2) ✓	NONE ✓	95d ✓	11/20/58 ✓
Conc. Mooring	30° 22.31' ✓	BARES ✓	20.0	4r ✓	3/25/59 ✓
Dolphin	81° 37.81' ✓				
Piling (Pile)	30° 22.87' ✓ 81° 37.34' ✓	BARES (2) ✓	1.0	8r ✓	3/25/59 ✓
(Pile with small pointer)	30° 23.52' ✓ 81° 36.72' ✓	BARES (5) ✓	8.0	1s ✓	3/26/59 ✓
Piling (Pile)	30° 23.67' ✓ 81° 36.14' ✓	BARES (3) ✓	0.0	8s ✓	3/26/59 ✓
Wreck (Barge in ruins)	30° 23.32' ✓ 81° 36.46' ✓	BARES ✓	0.0 ✓	8s ✓	3/26/59 ✓
Piling (Pile)	30° 23.75' ✓ 81° 35.05' ✓	BARES (3) ✓	5.0 ✓	86s ✓	3/26/59 ✓
Pipe	30° 24.23' ✓ 81° 36.12' ✓	AWASH (3) ✓	0.0 ✓	49v ✓	4/2/59 ✓
Wreck	30° 24.13' ✓ 81° 35.44' ✓	AWASH (3) ✓	1.0 ✓	55v ✓	4/2/59 ✓
Wreck	30° 23.68' ✓ 81° 37.78' ✓	AWASH (2) ✓	1.0 ✓	61w ✓	4/3/59 ✓
Piling (Pile)	30° 23.70' ✓ 81° 37.74' ✓	BARES (3) ✓	1.0 ✓	62w ✓	4/3/59 ✓
Piling (subm. pile)	30° 23.65' ✓ 81° 36.95' ✓	AWASH subm. ✓	2.0 ✓	89w ✓	4/3/59 ✓
Triang.	30° 24.67' ✓	BARES ✓	3.0 ✓	140w ✓	4/3/59 ✓
Plaff'm.	81° 36.20' ✓				
Tank (20m x 26m)	30° 24.60' ✓ 81° 36.14' ✓	AWASH (1) ✓	6.0 ✓	50x ✓	4/6/59 ✓
Piling (Pile)	30° 23.59' ✓ 81° 36.39' ✓	BARES (3) ✓	6.0 ✓	69x ✓	4/6/59 ✓
Subm. piling (Broken pile)	30° 22.31' ✓ 81° 37.87' ✓	AWASH (1) ✓	3.0 ✓	1y ✓	4/7/59 ✓
Submerged	30° 22.21' ✓	-----	6.0 ✓	3z ✓	4/8/59 ✓
Piling (Pile)	81° 37.81' ✓				
Submerged	30° 22.41' ✓	-----	8.0 ✓	4z ✓	4/8/59 ✓
Piling (Pile)	81° 37.88' ✓				
Piling	30° 23.46' ✓ 81° 37.30' ✓	BARES ✓	NONE ✓	22o ✓	11/21/58 ✓
Piling (Pile)	30° 23.08' ✓ 81° 37.45' ✓	BARES ✓	NONE ✓	11b ✓	11/18/58 ✓

Recommend the above be charted.

Wrecks	30° 23.19' ✓ 81° 38.27' ✓			9c ✓	11/19/58 ✓
Mooring piles	30° 23.00' ✓ 81° 38.04' ✓			18r ✓	3/25/59 ✓
Wrecked barge	30° 19.93' ✓ 81° 37.62' ✓	Bares MHW.		39k ✓	12/10/58 ✓

O. COAST PILOT INFORMATION

There are no changes to the Coast Pilot to report within the limits of this sheet.

P. AIDS TO NAVIGATION

Following is a list of all floating aids to navigation:

P7C Renew

NAME OR NUMBER	LAT. & LONG.	DEPTH	VOL. DATE LOC.
FIG - B DRUMMOND CREEK CUT	30° 24.34' ✓	Pos. No. 114W 27.0'	109 4/ 3/ 59 ✓
LIGHTED BUOY 59	81° 36.23'	27.4	
FIG - 13 TROUT RIVER CUT	30° 23.82' 11	8a 28.0	1 ✓ 11/17/58 ✓
LIGHTED BUOY 61	81° 37.02' 20		
FIG B TROUT RIVER CUT	30° 23.52' 1	9a 35.0 ✓	1 ✓ 11/17/58 ✓
LIGHTED BUOY 63	81° 37.46' 1	23	
FIG B TROUT RIVER CUT	30° 23.45' 1	10a 24.0 ✓	1 ✓ 11/17/58 ✓
LIGHTED BUOY 64	81° 37.60' 1	25	
N 74 B TROUT RIVER CUT	30° 23.10' 1	13a 26.0 ✓	1 ✓ 11/17/58 ✓
BUOY 66	81° 37.72' 1	25	
FIG B TROUT RIVER CUT	30° 23.07' 1	12a 26.0 ✓	1 ✓ 11/17/58 ✓
BUOY 67	81° 37.62' 1	30	
FIG B TROUT RIVER CUT	30° 22.88' 1	14a 34.0 ✓	1 11/17/58 ✓
LIGHTED BUOY 68	81° 37.78' 1		
FIG B LONG BRANCH LIGHTED	30° 22.73' 2	15a 35.0 ✓	1 11/17/58 ✓
BUOY 69	82° 37.73' 2		
FIG B LONG BRANCH LIGHTED	30° 22.32' 1	16a 30.0 ✓	1 11/17/58 ✓
BUOY 71	81° 37.61' 1		
CHASEVILLE MIDDLE	30° 22.08' 1	17a 24.0 ✓	1 11/17/58 ✓
GROUND BUOY	81° 37.88' 1	22	
N 74 B ARLINGTON CUT BUOY	30° 20.65' 1	53g 23.0 ✓	3 12/ 2/58 ✓
74	81° 36.91' 1		
N 76 B ARLINGTON CUT BUOY	30° 20.01' 1	44j 26.0 ✓	4 12/ 8/58 ✓
76	81° 37.09' 1		
N 78 B CROSS CHANNEL BUOY	30° 19.34' 1	102m 30.0 ✓	5 1/ 7/59 ✓
78	81° 37.29' 1	26.8	
FIG B COMMODORE POINT	30° 18.82' 1	20m 27.0	5 ✓ 1/ 7/59 ✓
LIGHTED BUOY 79	81° 37.68' 1		
FIG B COMMODORE POINT SHOAL	30° 18.89' 1	21m 33.0 ✓	5 1/ 7/ 59 ✓
LIGHTED BUOY 80	81° 37.83' 1		
FIG B COMMODORE POINT ROCK	30° 18.89' 1	1n 40.0	5 1/ 8/59 ✓
LIGHTED BUOY 81	81° 38.29' 1		
N 82 B COMMODORE POINT BUOY	30° 18.99' 1	3n 31.0 ✓	5 1/ 8/59 ✓
82	81° 38.21' 1		
LIGHTED BUOY 1	30° 21.12' 1	11j 33.0 ✓	3 12/ 2/58 ✓
FIG B LIGHTED BUOY 3	81° 37.11' 1	20	
FIG B LIGHTED BUOY 3	30° 20.22' 1	46j 24.0 ✓	4 ✓ 12/ 8/58 ✓
FIG B LIGHTED BUOY 4	81° 37.29' 1		
FIG B LIGHTED BUOY 4	30° 20.09' 1	45j 35.0	4 12/ 8/58 ✓
	81° 37.43' 2		

R. 81 H 60 30° 24.37' 81° 36.47' 74v 7.6 8 4-2-59

REMARKS TO NAVIGATION (cont'd)

NAME OR NUMBER	LAT. & LONG.	DEPTH	VOL.	DATE LOG.
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FIG 1300 LIGHTED BUOY 5 ✓	30° 19.33' ✓ 81° 32.47' ✓	Pos. No. 111 ✓ 32.0 ✓	✓ 5	12/19/58 ✓
MOORING BUOY ✓	30° 18.98' ✓ 81° 37.45' ✓	18m 40.0 ✓ 43	5 ✓	1/7/59 ✓
MOORING BUOY ✓	30° 18.90' ✓ 81° 37.56' ✓	19m 42.0 ✓	5 ✓	1/7/59 ✓

MOORING Buoy	30° 18.88' ✓ 81° 38.43' ✓	Ref. 2nd 27-28n	5	1/8/59
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Q. LANDMARKS FOR CHARTS

There are no new landmarks to report. All landmarks for charts and fixed aids to navigation were reported by photo party on form 567, previously submitted.

R. GEOGRAPHIC NAMES

There are no new geographic names to report. ✓

S. SILTED AREAS

Not applicable. ✓

T. BY PRODUCT INFORMATION

Not applicable. /

See N.P.O. List

APPENDIX A.
LIST OF SIGNAL
TO ACCOMPANY
HYDROGRAPHIC SURVEY SHEET H-8463, (FIELD NO. ECRP 14580)

STATION	ORIGIN	STATION	ORIGIN
ABE	T-10829	JUT	T-10828
ACT	T-10824	KEN	T-10829
AMY	T-10829	KEY	T-10824
ANT	T-10829	KID	T-10829
ART	T-10824	LAM	T-10829
BAG	T-10828	LAX	T-10829
BEN	T-10829	LEO	T-10829
BIB	T-10829	LOG	T-10824
BIG	T-10829	MAL	T-10829
BOB	T-10829	MAR	T-10829
CAM	T-10828	MID	T-10829
COD	T-10824	NAT	T-10829
COO	T-10829	NAY	T-10824
CUE	T-10834	NIL	T-10828
DAY	HYDRO. SIGNAL	NIX	T-10828
	PAGE 15 VOL. 1	NUB	T-10829
DIM	T-10828	NUT	T-10834
DOO	T-10834	OAK	T-10829
DOG	T-10829	OFF	T-10829
EBB	T-10824	OUT	T-10828
EEL	T-10829	OWL	T-10829
EGG	T-10828	PAL	T-10829
ELF	T-10834	PIE	T-10828
EON	T-10829	PIT	T-10828
FEX	T-10829	PIX	T-10829
FIX	T-10823	POP	T-10829
FOR	T-10834	PUT	T-10824
GAL	T-10829	RAM	T-10828
GAM	T-10829	ROY	T-10824
GAS	T-10829	SAD	T-10829
GET	T-10828	SHE	T-10829
GUS	T-10823	SIP	T-10828
HAG	T-10829	SIS	T-10828
HAT	T-10829	SUB	T-10824
HEM	T-10829	TAN	T-10829
HIT	T-10823	TAP	T-10829
HOP	T-10823	TAX	T-10829
HUG	T-10829	TOY	T-10828
IDA	T-10829	TRY	T-10824
IRK	T-10829	TUE	T-10829
ITS	T-10829	VAN	T-10829
IVY	T-10823	VAT	T-10824
JAY	T-10829	VIA	T-10829
JIB	T-10823	VIC	T-10828
JOE	HYDRO. SIGNAL	VIM	T-10829
	PAGE 15 VOL. 1		

LIST OF SIGNAL CONT,D

STATION	ORIGIN
WED	T-10829
WEE	T-10829
WHO	T-10829
WHY	T-10829
WIN	T-10828
WOO	T-10824
YAM	T-10829
YEA	T-10824
YES	T-10828
ZAG	T-10828
ZEE	HYDRO. SIGNAL
	PAGE 16*17-21 VOL 8
ZIP	T-10829

NORFOLK PROCESSING OFFICE

~~XXXXXXXX~~ LIST OF SIGNALS H-8463

TRIANGULATION STATIONS

ABE JACKSONVILLE, EPPENGER & RUSSELL CREOSOTING WORKS,
 SMOKE STACK, 1926
 BEN BEN (U.S.E.), 1908-26
 COW MATTHEWS (U.S.E.), 1908-48
 LAM DRIGGS 2 (U.S.E.), 1926
 MUM DRUMMOND POINT (U.S.E.), 1926
 POT JACKSONVILLE FORD MOTOR CO., WATER TANK, 1926
 RAT BIGELOW (U.S.E.), 1908-26
 TUB JACKSONVILLE WILSON-TOOMER FERT. CO., WATER TANK, 1926
 VIM JACKSONVILLE ARMOR FERT. CO., WATER TANK, 1926
 YES JACKSONVILLE CITY FIRE STATION NO. 11, WATER TANK, 1926-32

TOPOGRAPHIC STATIONS

SOURCE T-10823

Flx Gus Hit Hop Ivy Jib

SOURCE T-10824 (1)

Act Art Cod Ebb Fox Key Log

SOURCE T-10824(2)

Nay Put Roy Sub Try Woo Yea

SOURCE T-10828

Bag Cam Dim Egg Get Hat Jut Nil Ohm Out Pit
 Rag Ram Sip Sis Toy Vic Win Zag

SOURCE T-10829

Add Amy Ant Axe Bab Big Bob Coe Dog Dot Eel
 Eon Fed Fex Fez Gal Gam Gas Hag Hem Hug Ida
 Irk Its Jay Joy Jug Ken Kid Kin Lay Leo Mal
 Mar Mid Nat Nix Nub Oak Off Owl Pal Par Pix
 Pop Rev Rig Sad Sax She Tan Tap Tax Val Van
 Vet Via Wed Wee Who Why Yam Yap Zip

SOURCE T-10834

Cue Doc Elf For Nut

HYDROGRAPHIC STATIONS

Day Vol. 1, pg. 15 -- Vol. 2, pg. 39
 Joe Vol. 7, pg. 17
 Pie Vol. 9, pg. 19 -- Survey H-8464
 Zee Vol. 7, pgs. 16, 17 & 21

APPENDIX B.
STATISTICS
HYDROGRAPHIC SHEET H-8463 (ECFP-1458)

LAUNCH CS-168

DAY	VOL. NO.	DAY LTR.	NO. POSITIONS PATH	D.P.	NAUTICAL MI. SDG.
6					
11/17/58	1	a	17	10	0.9
11/18/58	1	b	93	4	11.0
11/19/58	1	c	62	0	7.2
11/20/58	1&2	d	101	10	11.1
11/21/58	2	e	75	4	8.5
12/1/58	3	f	43	1	4.5
12/2/58	3	g	103	6	11.1
12/5/58	3&4	h	100	0	8.5
12/8/58	4	j	128	4	13.8
12/10/58	4&5	k	83	5	11.2
12/19/58	5	l	11	1	1.3
1/7/59	5	m	107	13	9.8
1/8/59	5&6	n	102	4	10.7
1/9/59	6	p	12	0	1.0
3/24/59	6	q	66	2	3.8
3/25/59	6&7	r	137	2	13.7
3/26/59	7	s	99	4	10.9
3/27/59	7	t	50	0	4.0
4/1/59	8	u	158	2	17.0
4/2/59	8&9	v	132	2	11.5
4/3/59	9	w	171	6	13.7
4/6/59	9&10	x	78	4	5.7
4/7/59	10	y	6	1	0.0
4/8/59	10	z	0	4	0.0
			1929	89	190.9

LAUNCH CS-183

1/12/59	11	a	88	0	10.2
1/13/59	11	b	48	0	5.4
			136	0	15.6

APPENDIX C

ABSTRACT OF VELOCITY CORRECTIONS

TO ACCOMPANY

HYDROGRAPHIC SURVEY H-8463 (EOFP-1458)
PROJECT CS-407

LAUNCH CS-168

A. FATHOMETER NO. 808J (No. 77) ✓

DEPTHS	CORRECTION
0.0 - 3.0	0.0
3.1 - 10.0	+0.2
10.1 - 42.0	0.0
42.1 - 49.0	-0.2
49.1 - 54.0	-0.4
54.1 - 58.0	-0.6
58.1 - 66.0	-0.8

Use for the following dates:
Nov. 19, 20, 21, 1958
Dec. 8, 10, 19, 1958
Jan. 7, 8, 1959

B. FATHOMETER NO. 808J (No. 101S) ✓

DEPTHS	CORRECTION
0.0 - 4.0	0.0
4.1 - 9.0	+0.2
9.1 - 18.0	0.0
18.1 - 30.0	-0.2

Use for the following dates:
March 24 - April 6, 1959

C. FATHOMETER NO. EDO 255-1 (204) Launch CS-183 ✓

DEPTHS	CORRECTION
0.0 - 3.0	0.0
3.1 - 12.0	-0.2
12.1 - 19.0	-0.4
19.1 - 24.0	-0.6
24.1 - 48.0	-0.8
48.1 - 51.0	-1.0
51.1 - 54.0	-1.2
54.1 - 60.0	-1.4

Use for the following dates:
Jan. 12, 13, 1959

D. FATHOMETER NO. EDO 255-1 (203) Launch CS-168 ✓

DEPTHS	CORRECTION
0.0 - 36.0	0.0

Use for the following dates:
Nov. 17, 18, 1959

Velocity correction data for sheets H-8463 and H-8464
are interchangeable.

APPENDIX D

APPROVAL SHEET

TO ACCOMPANY

HYDROGRAPHIC SURVEY H-8463 (ECFP-1458)
PROJECT OS-407

The record corrections, fathograms, scanning and all field work were supervised by William A. Hughes and H. S. Cole.

The fathograms were scanned prior to ~~plotting~~ plotting the soundings on the boat sheet and no further scanning is necessary.

The descriptive report was written under the supervision of H. S. Cole.

The report and the records for this survey are complete and adequate to the best of my knowledge.

APPROVED AND FORWARDED

Howard S. Cole

Howard S. Cole
LCDR, USN
Chief of Party

NORFOLK PROCESSING OFFICE
ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8463(ECFP-1458)

GENERAL

Except for the discrepancies listed below, soundings are in generally good agreement on this survey. There are shoal spots and bottom irregularities in the vicinity of channels which are believed to be the results of dredging operations.

DISCREPANCIES

Soundings between positions 56 and 62c (red) were not smooth plotted. The fathogram is mutilated to the extent that soundings are not reliable. According to the note in vol. 1, pg. 65, a receiving spool was not used on this day and the fathogram had to be cut in sections for removal from the fathometer. Re-view 4C

According to the note on page 61, vol. 9, there is some question about the accuracy of pole soundings on "u" day - in the large bay East of Reddie Point - because of the pole sinking in soft mud, and because of the disagreement of pole with fathometer soundings in this vicinity. Although the pole was probably sinking in the mud, part of the discrepancy was undoubtedly caused by scanning the top of grass rather than the actual bottom. Crossings in this area were adjusted to better agreement by some rescanning of fathograms. 1 ft. arbitrary correction to fath. sdgs made to eliminate discrepancies between depth recorder and pole sdgs.

Norfolk, Va.
30 August 1960

Respectfully submitted,

Hugh L. Proffitt
Hugh L. Proffitt
Cartographer

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~XXXXXXXXXXXXXXXXXXXX~~

5 October 1960

Division of Charts: R.H. Carstens

Plane of reference approved in
11 volumes of sounding records for

HYDROGRAPHIC SHEET 8463

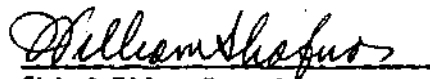
Locality St. Johns River, Florida

H.S. Cole (1958)
Chief of Party: W.A. Hughes (1959)
Plane of reference is mean low water reading.
1.8 ft. on tide staff at Chaseville
6.0 ft. below B. M. 1 (1958)

3.3 ft. on tide staff at Jacksonville (U.S. Navy Fuel Depot)
6.9 ft. below B. M. 1 (1958)

3.0 ft. on tide staff at Jacksonville (USE Dredge Depot)
11.3 ft. below B. M. 2 (1928)

Height of mean high water above plane of reference is as follows.
Chaseville = 2.3 ft. Jacksonville (U.S. Navy Fuel Depot) = 2.2 ft.
Jacksonville (U.S.E. Dredge Depot) = 2.0 ft.
Condition of records satisfactory except as noted below:



Chief, Tides Branch

~~Chief, Division of Tides and Currents~~

OFFICE OF CARTOGRAPHY

REVIEW SECTION -- NAUTICAL CHART DIVISION

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8463

FIELD NO. ECFP-1458

Florida, St. Johns River, Vicinity of Jacksonville

SURVEYED: Nov. 1958 - April 1959 SCALE: 1:10,000

PROJECT NO. CS-407

SOUNDINGS: Edo Depth Recorder
808 Depth Recorder
Sounding Pole

CONTROL: Sextant fixes
on shore signals

Chief of Party-----W. A. Hughes
H. S. Cole
Surveyed by-----G. F. Trefethen
D. W. George
J. D. Wingfield
Protracted by-----D. C. Davenport
Soundings plotted by-----D. C. Davenport
Verified and inked by-----D. J. Kennon
Reviewed by-----I. M. Zeskind
Inspected by-----R. H. Carstens

Date: 7-9-63

1. Description of Area

This is a survey of St. Johns River and tributaries located in the vicinity of Jacksonville, Florida. The bottom is generally fairly irregular, except in the tributaries entering St. Johns River and the flats off Quarantine Island. Here the bottom is smooth. Shoals and flats contribute to the bottom irregularity.

2. Control and Shoreline

The source of the control is given in the Descriptive Report.

The shoreline originates with the following reviewed photogrammetric surveys T-10823, T-10824, T-10828, T-10829, T-10834 and T-10835 of 1958-59.

3. Hydrography

Depths at crossings are in good agreement. The usual depth curves are adequately delineated. The least depths on shoals were adequately determined. A number of piles and pier ruins were not adequately investigated and will be retained on the chart from prior surveys and miscellaneous sources.

4. Condition of Survey

a. The sounding records and Descriptive Report are complete and comprehensive.

b. The smooth plotting was accurately done except as follows: Because of inaccuracies in the transfer of the shoreline from the photogrammetric surveys to the smooth sheet in the southeast and northern portions of the smooth sheet by the smooth sheet plotter, it was necessary for the verifier to spend considerable time redrawing the shoreline in the affected areas.

c. In order to bring soundings on c day (purple) between positions 35 and 62 inclusive into agreement with surrounding hydrography, 2.5 ft. were added to the recorded depths. These discrepancies in depths were attributed to the malfunctioning of the depth recorder.

5. Junctions

An adequate junction was effected with H-8464 (1959) on the west in the vicinity of long. $81^{\circ}39.0'$. The present survey extends to the project limits on the east, where charted depths are in adequate agreement with the present depths. No contemporary survey joins the present survey at the railroad bridge across Trout River in the vicinity of long. $81^{\circ}38.25'$. Charted depths here at the limits of the present survey are in adequate agreement with present depths, except south of the bridge opening where the present depths are about 2 ft. shoaler.

6. Comparison with Prior Surveys

- A. H-482 (1855), 1-10,000
- H-484 (1855), 1-10,000
- H-1542b (1883) 1-10,000

These early reconnaissance surveys cover the area of the present survey. A comparison between the prior and present surveys reveals changes in bottom configuration and shoreline. These changes are attributed to natural and artificial causes such as the action of the current on the bottom, the depositing of sediment from the tributaries which empty into St. Johns River, the dredging of channels and canals, the construction of piers and slips and the reclaiming of land. The shoreline changes are principally due to the reclaiming of land. Several man-made islands falling within the area of the present survey were non-existent at the time of the prior surveys. Quarantine Island in the vicinity of lat. $30^{\circ}24.0'$, long. $81^{\circ}35.0'$, and the island in the vicinity of lat. $30^{\circ}19.6'$, long. $81^{\circ}37.0'$, are examples of these man-made islands. A bridge connecting Arlington with Jacksonville has been built. A main ship channel which extends from the northeastern limits of the present survey to Commodore Point, and an auxiliary channel which lies east of the main ship channel approximately between Arlington and Floral Bluff has been dredged with the resultant changes in depths. A channel which formerly extended about 1 mile east of the island shown on the present survey in the vicinity of lat. $30^{\circ}23.7'$, long. $81^{\circ}37.1'$, has shoaled as much as 6 ft.

Information transferred from the preliminary photogrammetric survey T-10829 (1958-59) to the boat sheet of the present survey indicates the wrecks located at lat. $30^{\circ}19.10'$, long. $81^{\circ}36.35'$, and lat. $30^{\circ}19.07'$, long. $81^{\circ}36.21'$, are each covered by 1 ft. of water. The registered copy of T-10829 shows these wrecks each to uncover 1 ft. at M.L.W. The information concerning the wrecks on the registered copy of T-10829 is believed to be erroneous and should actually read "covers 1 ft. at M.L.W."

The present survey is adequate to supersede the prior surveys within the common area.

B. H-6538 (1939), 1-5,000

This survey covers Arlington River east of approximate long. $81^{\circ}37.0'$, and includes its tributaries. A comparison between the prior and present surveys shows depths on the present survey generally to be 1 ft. shoaler than those on the prior survey. The comparison further reveals that a number of new piers have been built and a number of canals have been dredged since the prior survey. The wreck charted in lat. $30^{\circ}19.09'$, long. $81^{\circ}36.50'$, from H-6538 (1939), where it is shown as baring 1 ft. at M.L.W. is not shown on the present survey or photogrammetric survey T-10829 (1958-59) which covers this area.

The existence of the wreck is not considered disproved. The feature, therefore, is transferred from H-6538 to the present survey as a sunken wreck and should be so charted.

With the addition of the above mentioned wreck, the present survey is adequate to supersede the prior survey within the common area.

7. Comparison with Chart 577 (latest print date 1-28-63)

A. Hydrography

The charted hydrography originates with prior survey H-6538 (1939), with the U. S. Corps of Engineers survey of 1932 (Bps 25102 and 25104) and 1934 (Bps 28568-70), supplemented by critical depths from the boat sheet of the present survey (Bp 58048). A comparison between the chart and present survey shows the present survey depths generally to be as much as 4 ft. shoaler, except in several areas where greater shoaling has occurred, as for example in lat. $30^{\circ}18.91'$, long. $81^{\circ}37.53'$, where a charted depth of 57 ft. falls in present depths of 43 ft.

Attention is specifically directed to the following differences between the charted and present survey data:

1. The pier and dolphins charted in the vicinity of lat. $30^{\circ}24.5'$, long. $81^{\circ}36.3'$, from chart letter 1252, 1960, subsequent to the present survey should be retained on the chart.
2. The pier and dolphins charted in the vicinity of lat. $30^{\circ}24.6'$, long. $81^{\circ}36.15'$, from chart letter 10, 1962, subsequent to the present survey should be retained on the chart.
3. The piles charted in the vicinity of lat. $30^{\circ}24.74'$, long. $81^{\circ}36.14'$, from the Corps of Engineers survey of 1934 (Bp 28563-71) are not shown on the present survey. These features are not considered disproved by the present survey and, therefore, should be retained on the chart.
4. The 2 dolphins or piles charted at the end of the catwalks in the vicinity of lat. $30^{\circ}19.05'$, long. $81^{\circ}38.90'$, originate with the U. S. Geological Survey "Jacksonville" Quandrangle, 1950 edition (Bp 54196).

These features are not shown on the present survey or on photogrammetric survey T-10828 (1958-59) covering the area in which these features fall. The dolphins or piles are superseded by the concrete wall shown on H-8464 (1959) and, therefore, should be deleted from the chart.

5. The 9-ft. sounding charted in the U. S. Engineers' Dredge Depot in lat. $30^{\circ}21.38'$, long. $81^{\circ}37.27'$, from the U. S. Engineers' survey of 1934 (Bp 28563) should be retained on the chart to supplement present survey depths. This area was not developed on the present survey.

6. The pier in ruins charted in lat. $30^{\circ}18.8'$, long. $81^{\circ}38.48'$, originates with U. S. Geological Survey "Jacksonville" Quadrangle, 1950 edition (Bp 54196). This feature was charted prior to 1932 as a pier from a source not readily ascertainable. The feature which is not shown on the present survey is not considered disproved and should be retained as a pier in ruins on the chart.

7. The pier in ruins charted in the vicinity of lat. $30^{\circ}23.40'$, long $81^{\circ}36.45'$, from photogrammetric survey T-5670 (1933-39) was not found during the present survey. The feature was not considered disproved and, therefore, was transferred to the present survey. The pier ruins should be retained on the chart.

8. The submerged training wall charted in the vicinity of lat. $30^{\circ}23.25'$, long. $81^{\circ}37.4'$, from the U. S. Corps of Engineers' survey of 1950 (Bp. 46834), extends about 300 meters south south-westward beyond the limits shown on the present survey. The portion of the charted feature not shown on the present survey is not considered disproved. The charted length of the feature should be retained in the chart.

9. The 7-ft. sounding charted in lat. $30^{\circ}20.95'$, long. $81^{\circ}37.11'$ from the U. S. Corps of Engineers survey of 1934 (Bp. 58570) falls in present depths of 9-11 ft. The area in which the 7-ft. sounding

falls on the present survey is not considered to be adequately developed to disprove the existence of this sounding. The 7-ft. sounding should be retained on the chart.

The present survey is adequate to supersede the charted hydrography within the common area except for features noted above for retention on the chart.

B. Dredged Channels

The charted controlling depths in the main ship channel originate with after dredging surveys of the U. S. Corps of Engineers of 1962 (Bps 63212019) accomplished subsequent to the present survey. The charted controlling depth of 23 ft. in the auxiliary channel between Empire Point and Floral Bluff originates with the boat sheet of the present survey (chart letter No. 1016, 1958). The charted controlling depth here is in agreement with the present survey after verification and review.

C. Aids to Navigation

The present survey positions of aids to navigation are in substantial agreement with the charted positions and adequately mark the features intended.

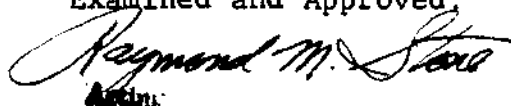
8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work

This is a good basic survey and no additional field work is recommended.


Chief,
Marine Chart Division

Examined and Approved:

Associate Director,
Hydrography and Oceanography

GEOGRAPHIC NAMES

Survey No. H-8468

Name on Survey	<div style="display: flex; justify-content: space-between;"> <div>On Chart No. 577</div> <div>On previous survey No.</div> <div>On U. S. quadrangle Maps</div> <div>From local information</div> <div>On local Maps</div> <div>P. O. Guide or Map</div> <div>Rand McNally Atlas</div> <div>U. S. Light List</div> </div>										BGN
	A	B	C	D	E	F	G	H	K		
Arlington River	x										1
Commodore Point	x								x		2
Crab Island	x										3
Drummond Point	x										4
Empire Point	x										5
Jacksonville	x								x		6
Little Pottsburg Cr	x										7
Long Branch	x								x		8
Miller Creek	x										9
Newcastle Island	x										10
Pottsburg Creek	x										11
Quarantine Island	x										12
Reddie Point	x								x		13
Trout River	x								x		14
											15
Drummond Cr.											16
Chaseville											17
Floral Bluff											18
Arlington											19
strawberry Cr											20
Silversmith Cr											21
South Jacksonville											22
William I											23
											24
											25
											26
											27

George M. Bee
GEOGRAPHIC NAMES SECTION
28 SEPTEMBER 1960

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO.8463..

Records accompanying survey: Smooth sheets ...1...;
 boat sheets ...1...; sounding vols. ...11...; wire drag vols.;
 Descriptive Reports ...1...; graphic recorder envelopes 13...;
 special reports, etc.

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	2055
Number of positions checked	136
Number of positions revised	1
Number of soundings revised (refers to depth only)	213
Number of soundings erroneously spaced	See verifier's notes page 5
Number of signals erroneously plotted or transferred	See verifier's notes page 4
Topographic details	Time See verifier's notes page 5
Junctions	Time 1 hr.
Verification of soundings from graphic record	Time 16 hrs
Special adjustments	Time 16 hrs c-day position 35c thru 62c-day.

Verification by D.J. Kennon Total time 492 hrs Date Jan. 14, 1963

Reviewed by J. Zaskin Time 107 Date July 9, 1963

SURVEY NO. H-8463

[illegible]

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.



(CONTINUED ON CHART 685)

○ RADIO TOWER 500 ft
(WJHP - TV)

Chart - 1243